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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/893,555	06/29/2001	Hong Jin Kim	8733.443.00	5076

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EXAMINER

NGO, HUYEN LE

ART UNIT PAPER NUMBER

2871

DATE MAILED: 05/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/893,555

Applicant(s)

KIM, HONG JIN

Examiner

Julie-Huyen L. Ngo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 4/3/03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) 7-12 and 16- 41 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 13-15 is/are rejected.
- 7) ☒ Claim(s) 5,6,14 and 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

The information disclosure statement filed June 19, 2002 (paper no. 5) has been considered.

Election/Restrictions

Applicant's election without traverse of Species A (claims 1, 3-6 and 13-15) in Paper No. 8 is acknowledged. However, it appears that claims 3-6 depend from claim 2, therefore, claim 2 is also treated below along with the elected claims.

Claims 7-12 and 16- 41 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Species, there being no allowable generic or linking claim.

Claim Objections

Claims 5, 6, 14 and 15 are objected to because of the following informalities: ✓

The term "relatively" in claims 5, 6, 14 and 15 is a relative term, which renders the claim indefinite. The term "relatively" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Applicant needs to specify how long/short that considers to be the "relatively long/short length" or how wide that considers to be the "relatively narrow/wide width."

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Claim 15 is objected to because "the electrode link has a relatively narrow length" appears to be "the electrode link has a relatively narrow width."

All claims that are depended from the above-mentioned claims and are not specifically discussed above are objected as bearing the defects of the claims from which they depend.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Kishimoto et al. (US4586789).

Kishimoto et al. teach (Figs. 4 and 7) forming a liquid crystal display including a pixel area and a driving circuit comprising:

- at least two electrode links¹⁵, each extended from the pixel area;
- at least two pad members in contact with the driving circuit and the electrode links,
- each pad members having a different size in accordance with a length of the electrode link.

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 13-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Na et al. (US6104465A) in IDS provided by Applicant.

Na et al. teach (Figs. 4) forming a liquid crystal display including a pixel area and a driving circuit comprising:

- at least two electrode links L1, each extended from the pixel area B,
- the electrode links having lengths different from each other;
- at least two pad members in contact with the driving circuit and the electrode links,

wherein

- the electrode links are different from each other in a width.

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- when the electrode link has a relatively long length, the electrode link has a relatively wide width (claim 14).
- when the electrode link has a relatively short length, the electrode link has a relatively narrow width (claim 15).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kishimoto et al. (US4586789) in view of conventional art admitted by applicant (Figs. 1-3).

Kishimoto et al. teach (Figs. 4 and 7) forming a liquid crystal display including a pixel area and a driving circuit comprising:

As to claim 1:

- at least two electrode links¹⁵, each extended from the pixel area;
- at least two pad members in contact with the driving circuit and the electrode links,
- each pad members having a different size in accordance with a length of the electrode link.

wherein

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- the electrode pad varies along with the length of the electrode link in at least one of a width, a length and a thickness (claim 3).
- the electrode pad is extended toward the pixel area to have a different length in accordance with the length of the electrode link (claim 4).

wherein

- the electrode link has a relatively long length, the electrode pad has a relatively long length (claim 5).
- when the electrode link has a relatively short length, the electrode pad has a relatively short length (claim 6).

However, Kishimoto et al. fail to teach a liquid crystal display with each pad member including:

- an electrode pad connected to the electrode link; and
- a transparent electrode in contact with the driving circuit and the electrode pad,

wherein any one of the electrode pad and the transparent electrode varies along with the length of the electrode links (claim 2)

Applicant admits (Figs. 2-3) that a conventional display comprises a pad member including an electrode pad connected to the electrode link; a transparent electrode 18 in contact with the driving circuit and the electrode pad, wherein any one of the electrode pad and the transparent electrode varies along with the length of the

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electrode links for electrically contacting with the TCP having the driving circuit via a contact portion (page 4 lines 17-18).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify a liquid crystal display as Kishimoto et al. disclosed with each pad member including an electrode pad connected to the electrode link; a transparent electrode in contact with the driving circuit and the electrode pad, wherein any one of the electrode pad and the transparent electrode varies along with the length of the electrode links for electrically contacting with the TCP having the driving circuit via a contact portion.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Suenaga (JP401152425A) discloses Structure of External Fetching Termianl.

Kweon et al. (US 5811318A) disclose method for manufacturing a liquid crystal display with connecting the gate pad of the gate-pad connecting area to the pad electrode of the pad area.

Noriyama (US5825439A) discloses array substrate for display quipped with a connecting conductor for electrically connecting signal lines and scan lines via non-linear element circuits.

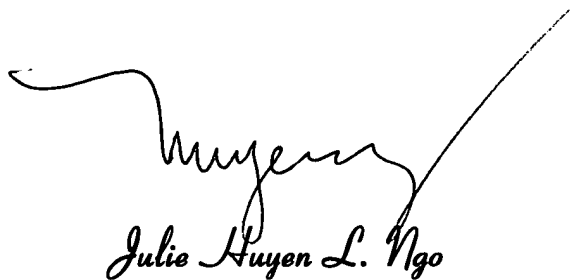
Contact Information

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Julie Ngo, whose telephone number is (703) 305-3508.

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Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist, whose telephone number is (703) 308-0956.

Papers related to this application may be submitted to Art Unit 2871 by facsimile transmission. The Examiner direct fax number is (703) 746-4709. Please call before sending any paper.

A handwritten signature in black ink, appearing to read "Julie Huyen L. Ngo", with a long, sweeping horizontal line extending to the right.

Julie Huyen L. Ngo
Patent Examiner
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April 30, 2003